

**HYPER-FAST
GLASS PASSIVATED RECTIFIER**

**REVERSE VOLTAGE – 600Volts
FORWARD CURRENT – 8.0 Ampere**

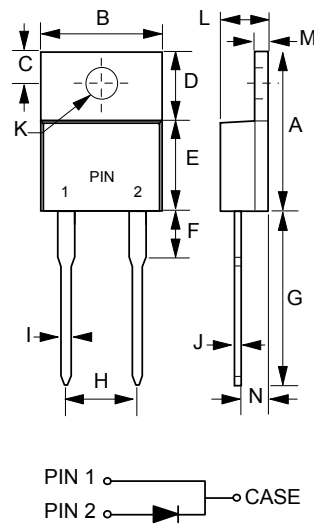
FEATURES

- Soft, Hyper fast switching capability
- Specially suited for critical mode Power Factor Corrections.
- High reliability and efficiency

MECHANICAL DATA

- Case: JEDEC TO-220AC
- Case Material: Plastic material, UL flammability classification 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Lead Free Plating
- Polarity indicator: As marked on the body
- Weight: 0.06 ounces, 2.24 grams
- Component in accordance to RoHs 2002/95/EC
- Maximum mounting torque = 0.5 N.m (5.1 Kgf.cm)

TO-220AC



TO-220AC		
DIM.	MIN.	MAX.
A	14.40	15.20
B	9.65	10.67
C	2.54	3.43
D	5.84	6.86
E	8.26	9.28
F	-	4.20
G	12.70	14.73
H	4.83	5.33
I	0.51	1.14
J	0.30	0.64
K	3.53 \varnothing	4.09 \varnothing
L	3.56	4.83
M	1.14	1.40
N	2.03	2.92

All Dimensions in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter			Symbol	LTTH806SD	Unit	
Maximum Repetitive Peak Reverse Voltage			V_{RRM}	600	V	
Average Rectified Output Current			I_F	8.0	A	
Forward Voltage (1)	$I_F=8.0A$	$T_j=25^\circ C$	V_F	3.4	V	
Reverse Leakage Current	$V_R=600V$	$T_j=25^\circ C$ $T_j=125^\circ C$	I_R	15 200	μA	
Reverse recovery time	$I_F=0.5A$ $I_{rr}=0.25A$ $I_R=1.0A$	$T_j=25^\circ C$	t_{rr}	21	ns	
Thermal characteristics (GBD)			Symbol	Value	Unit	
Non Repetitive Forward Surge Current		$t_p=10ms$	I_{FSM}	60	A	
Operation and Storage temperature range			T_J, T_{STG}	-55 to +175	$^\circ C$	
Typical thermal resistance, Junction to Ambient (2)			$R_{\theta JA}$	7.0	$^\circ C/W$	
Typical thermal resistance, Junction to Case (2)			$R_{\theta JC}$	2.8	$^\circ C/W$	
Typical thermal resistance, Junction to Lead (2)			$R_{\theta JL}$	3.5	$^\circ C/W$	
Dynamic electrical characteristics (GBD)			Symbol	Typical	Max.	
Reverse recovery time	$I_F=1A$, $dI_F/dt=-200A/\mu s$, $V_R=30V$	$T_j=25^\circ C$	t_{rr}	12	18	ns
Reverse recovery current	$I_F=8 A$, $dI_F/dt=-200A/\mu s$, $V_R=200V$	$T_j=25^\circ C$	I_{RM}	1.8	2.2	A
Reverse recovery charges		$T_j=125^\circ C$		5	6.0	
		$T_j=25^\circ C$	Q_{rr}	60	---	nC
		$T_j=125^\circ C$		220	---	

Note :

- (1) 300us Pulse Width, 2% Duty Cycle.
- (2) Thermal Resistance test performed in accordance with JESD-51. R_{thj-L} is measured at the PIN 2, R_{thj-C} is measured at the top centre of body.
- (3) GBD means Guaranteed By Design, the spec is basically follow designer simulation.

REV. 12, Sep-2012, KTGA25

FIG.1- FORWARD CURRENT DERATING CURVE

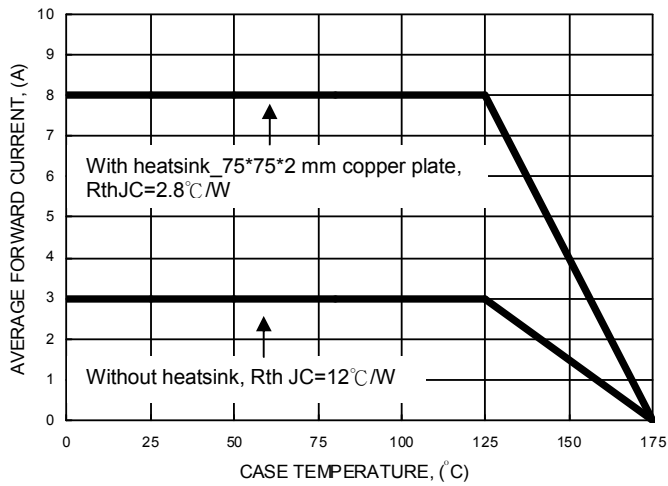


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

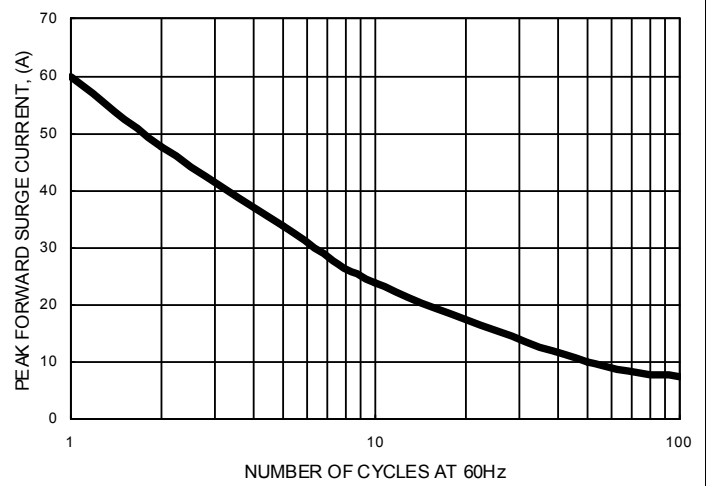


FIG.3- TYPICAL FORWARD CHARACTERISTICS

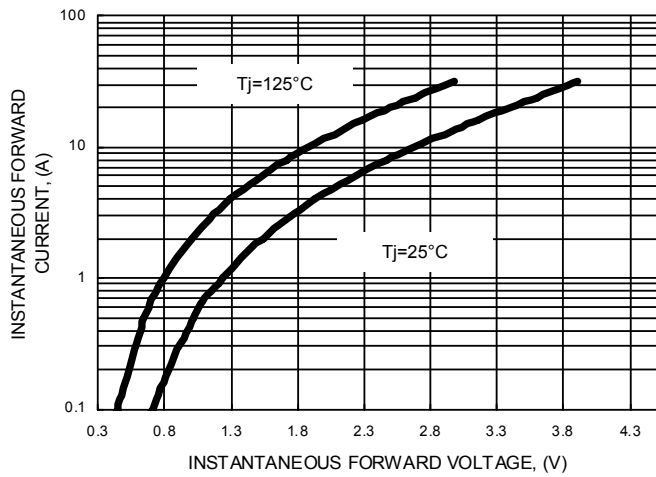


FIG.4- TYPICAL JUNCTION CAPACITANCE

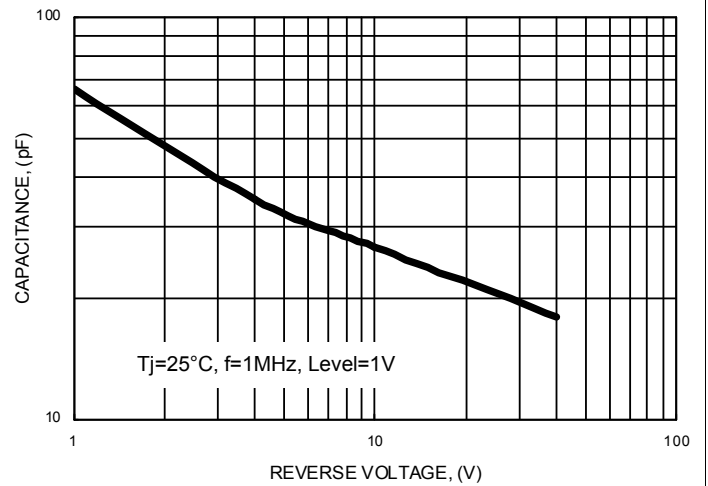


FIG.5- TYPICAL REVERSE CHARACTERISTICS

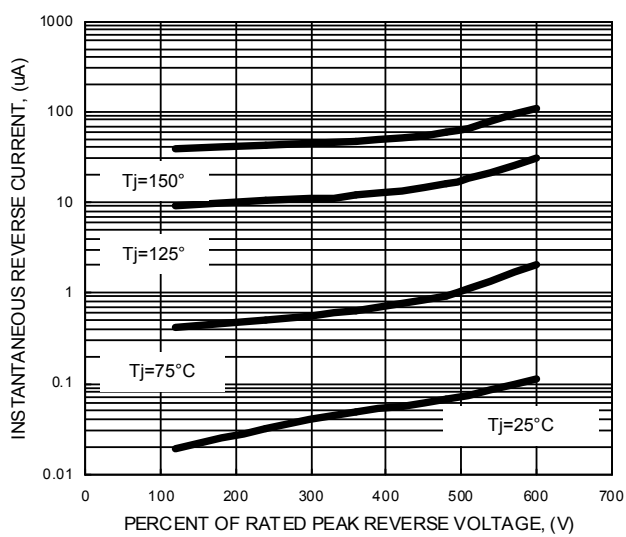
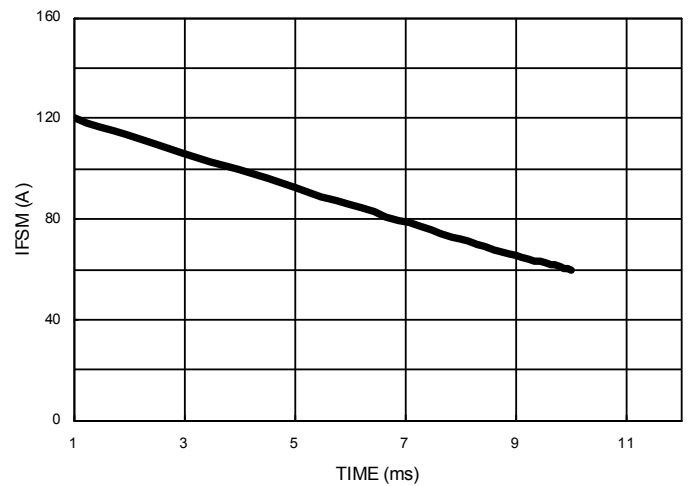


FIG.6- IFSM CAPABILITY CURVE



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